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Remarks

The courtesies extended to the applicant and his representative during the interview held on 17 January 2007 are gratefully acknowledged.

A model of the claimed apparatus and its operation were demonstrated to the Examiner during the interview. The model comprised a pair of folding boards situated upstream of a pair of rollers that simulated a pair of coating folding rolls producing an interfolded product.

Claims 1-15 of record were discussed with the Examiner, as well as the applied references, namely, U.S. Patents No. 3,942,782 (Hermach), No. 4,824,426 (DuFresne), and U.S. Patent No. 5,088,707 (Stemmler). The Hermach and Stemmler references were discussed in detail.

Proposed claim amendments were discussed briefly with the Examiner and are reflected in the current Listing of Claims.

The primary thrust of argument advanced during the interview was the incompatibility of the Stemmler and Hermach references. It was the applicant's position (1) that the claimed apparatus would not have been obvious in view of the teachings of Stemmler and Hermach, and (2) that one of ordinary skill would not have had any motivation to turn to Hermach, drawn from non-analogous art, when seeking to improve on the apparatus described by Stemmler.

Currently claims 11-16 are under consideration. Claims 11, 14 and 15 are amended to define the claimed apparatus in greater detail. Claim 16 is new, and is presented to define a preferred embodiment that utilizes folding boards as the web dispensers.

No new matter has been introduced by the present amendments.

The present amendments to claims 11, 14 and 15 are supported, *inter alia*, by FIGURE 4 as well as the specification at page 4, lines 15-24.

Claim 16 is supported by FIGURE 4 and the specification at page 4, lines 16-17.

The rejection of claims 11-15 under 35 U.S.C. 112, second paragraph, is believed to be overcome by the present amendments to claim 11 that specifies with particularity that the interfolder is situated downstream from the sheet dispensers and

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comprises a pair of folding rolls for receiving preformed sheet material from each of the dispensers.

The rejection of claims 11 and 14 under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 3,942,782 to Hermach is not warranted, and is hereby traversed.

As discussed during the interview, Hermach is directed to a method for folding newspapers – a non-analogous art. Newspapers are folded, not interfolded. An interfolded newspaper would be extremely cumbersome to unfold for reading. One of ordinary skill most certainly would not have interfolded a newspaper prior to its distribution to the reading public.

Also, Hermach only shows a single folding cylinder (cylinder 36) downstream from folding boards 26A-26C. The present claims call for an interfolder that comprises a pair of folding rolls. A single folding cylinder as shown by Hermach cannot interfold sheets of material.

Cylinder 37 is not a folding cylinder but a cutting cylinder, see col. 4, lines 67-68, for separating individual newspaper sections that then pass through rollers 38 and are individually placed into pockets of delivery fan wheel 39 for deposit on conveyor 40. See col. 5, lines 1-4 and FIG. 2. The produced newspaper sections are illustrated in FIG. 5. Clearly, these sections A, B, C, D are not interfolded, rather they are stacked one on top of another.

The anticipation rejection based on Hermach is not warranted, but should be withdrawn.

The rejection of claim 12 under 35 U.S.C. 103(a) as unpatentable over Hermach in view of U.S. Patent No. 4,824,426 to DuFresne is likewise traversed. The Examiner agrees that Hermach does not show the claimed double "c"-shaped fold. Neither do U.S. Patent No. 5,088,707 to Stemmler nor DuFresne. The double "c"-shaped fold is illustrated in applicant's FIGURE 3(a). Nothing of the kind is shown by Stemmler or DuFresne. Only zig-zag folds are shown. See, for example, FIG. 3 of DuFresne and FIGS. 6 & 7 of Stemmler. Withdrawal of this rejection is believed to be in order.

The further rejection of claims 11 and 13-15 as unpatentable over Stemmler in view of Hermach is traversed as well.

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The combination of these two references does not establish *prima facie* obviousness of the claimed apparatus. This very same rejection has already been addressed in applicant's Appeal Brief filed on 21 August 2006, and which necessitated the current remand.

It is well established that 35 U.S.C. 103(a) requires a factual inquiry into the scope and content of the prior art, focusing on the differences between the claimed invention and the prior art, in order to determine whether the differences are such that the claimed invention as a whole would have been obvious to one of ordinary skill in the art (here the paper converting art) at the time the invention was made. The invention must be considered as a whole. It is not relevant in determining obviousness that some or all aspects of the claims may have been otherwise known in the art. Jones v. Hardy, 220 U.S.P.Q. 1021, 1025 (Fed. Cir 1984). Virtually all inventions are necessarily combinations of old elements. One cannot pick and choose among individual parts of assorted prior art references as a mosaic to create a facsimile of the claimed invention. Akzo N.V. v. United States ITC, 1 U.S.P.Q.2d 1241, 1246 (Fed. Cir. 1986).

It is also improper to use the applicant's own specification as an instruction book on how to reconstruct the prior art. Panduit Corp. v. Dennison Mfg. Co., 1 U.S.P.Q.2d 1593, 1602 note 29. One of ordinary skill would not have had the applicant's own specification as a guide at the time this invention was made.

To properly combine the references, there must be some teaching, suggestion or inference in the references themselves that would have led one of ordinary skill in the relevant art to combine the appropriate teachings.

Here neither Stemmler nor Hermach provide the requisite motivation to pick, choose and assemble the claimed apparatus. Stemmler is concerned about producing numerically correct partial stacks from individual sheets interfolded in conventional manner. Stemmler focuses the attention of one of ordinary skill downstream from the folding rolls to which webs W1 and W2 are fed conventionally. Hermach seeks to expedite the folding and collation of newspaper pages, and has devised an apparatus to do so. Hermach, however, does not and cannot interfold newspaper pages. That would have resulted in a product totally unacceptable to the reading public.

Neither Stemmler nor Hermach address the problem (compact packaging) addressed and solved by the applicant.

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In particular, Stemmler lacks the longitudinal fold line as well as the fold. Stemmler teaches very different expedients. Stemmler teaches the production of numerically correct stacks of interfolded sheets, an event that takes place downstream from the folding rolls. One of ordinary skill would not have had any motivation whatsoever to look upstream of the folding rolls when seeking to improve upon Stemmler's apparatus.

The shortcomings of Stemmler as a reference against the appealed claims is not cured by Hermach. This particular reference merely shows an apparatus for folding (not interfolding) newspaper pages.

Stemmler and Hermach are not combinable. Hermach describes an apparatus for folding newspapers. That has nothing to do with interfolding webs of material to provide an interfolded compact product. There is no reason whatsoever to interfold a newspaper, thereby making it more difficult to unfold for reading. One of ordinary skill most certainly would not have done so. Besides, the mechanical elements of Hermach's apparatus are vastly different from those of Stemmler (cf, for example, FIG. 1 of Stemmler with FIG. 2 of Hermach). The purpose of the apparatus is different, the operation of the apparatus is different, and the arrangement of the respective mechanical parts is necessarily different.

Regarding claim 13, the Examiner merely states that Stemmler's sheets of material include a plurality of spaced-apart, transversely extending perforation lines. That is not enough to support a rejection, especially in view of the Examiner's admission that the sheets disclosed by Stemmler lack the longitudinal fold line as well as the fold. The patentability of each claim must be evaluated in its entirety. That has not been done in this instance.

The rejection of claims 14 and 15 also is not supported by the record. The mere fact that Stemmler discloses use of knife rolls or perforations in his apparatus does not vitiate the patentability of these particular claims, especially in view of the Examiner's aforementioned omission. The apparatus of Stemmler is different, and the sheets to be processed are different as well.

In the present case there are also the so-called "secondary considerations" that militate against a finding of obviousness.

First of all, interfolding has been practiced for a long time. See, for example, U.S. Patent No. 4,824,426 to DuFresne (1989) at col. 1, lines 13-25, and U.S. Patent No.

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1,219,239 (1917) (copy enclosed), yet prior to the present invention no one has combined web folding dispensers such as folding boards with an interfolder and positioned the web-folding dispensers upstream of the interfolder folding rolls. Interfolding has been known for close to one hundred years, yet no one in the paper converting art has come up with the applicant's claimed invention. This is unequivocal evidence of unobviousness!

Second, the present invention, made prior to 9 October 2003, enjoys peer recognition in 2007 as a commercially significant advance in the paper converting art. See Exhibit A hereto which is a copy of the notification of nomination for IDEA07 Achievement Award dated 01/04/07.

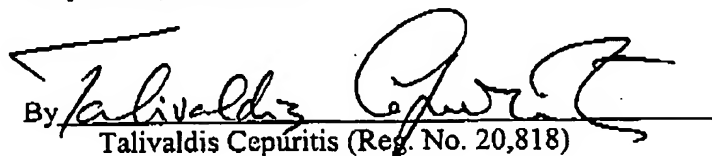
Such considerations cannot be ignored, but clearly demonstrate the unobviousness of the presently claimed apparatus.

Regarding new claim 16, this claim is limited to folding boards as the web folding dispensers and is dependent on claim 11. As such, claim 16 is distinguishable over Stemmler, Hermach and DuFresne for the same reasons as claim 11 discussed hereinabove.

Early passing of this application to issue is solicited.

Respectfully submitted,

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Enclosures: PTO/SB/08A (1 p.) + patent identified therein (10 pp.)
PTO/SB/08B (1 p.) + document identified therein (4 pp.) labeled as Exhibit A